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Estimated Monthly Requirement for OXCART
Reconnaissance of Cuba

1. At a special restricted session of the USIB on 16 September, the Chairman requested the COMOR to review our reconnaissance experience over Cuba last year to determine how many OXCART missions per month (in lieu of the U-2) would be required to satisfy our high-altitude photographic collection requirements in that area. Our conclusions are tentative in the absence of operational experience with the OXCART project and do not take into account vulnerability factors, which are the subject of another study in progress.

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2. The OXCART flying a single flight line per mission is capable of providing interpretable photography of the entire land area of Cuba with 2 missions and has some advantages over the U-2. Its effective swath width is reported to be 70 miles with resolutions ranging from 1.1 feet at nadir to 2.5 to 3 feet 35 miles from nadir as compared with the U-2 using camera mode 5 which has a swath width of [illegible] miles and resolution of 2 to 3 feet. OXCART, however, suffers from certain

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Group 1
Excluded from automatic downgrading and declassification

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NRO review(s) completed.

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T-O-P S-E-C-R-E-T COMOR-D-24/157
(CWG-D-10/2)

25X1 [redacted] [redacted] 25X1

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ILLEGIB [redacted]

ILLEGIB [redacted] [redacted]

operational limitations, ~~i.e.~~ a limited capability for altering course, ~~extensive maintenance and preflight time, and a need for multiple refuelings.~~ 1965 The U-2 can ~~spend more time~~ over Cuba and can reverse course according to plan to overfly areas or objectives that require coverage. U-2 response time is a matter of hours whereas the OXCART, depending on maintenance status, may require as much as 7 to 10 days.

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3. ~~Both OXCART and U-2 camera systems are limited in coverage by weather.~~ Large masses of cloud cover, which usually move over the island from west to east, often obscure large parts of the land area. Haze is a common problem during much of the year, and ~~cumulus~~ cloud buildup precludes reconnaissance by early afternoon. Experience during 1963 - 64 has shown that there were periods when weather made it impossible to fulfill USIB requirements even when missions were flown almost daily. Weather is more likely to affect the success of the OXCART missions than it does the U-2, since the latter has better maneuverability to take advantage of predicted favorable weather.

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4. ~~We believe~~ that the current USIB requirements, with the exceptions noted below, can be satisfied by the number of OXCART missions as specified in paragraph 5, provided maximum advantage is taken of weather. Coverage of the Guantanamo area every two weeks

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[redacted]

T-O-P S-E-C-R-E-T [redacted] 25X1

can be accomplished by including it as a specific objective on each of two missions flown early in the month. These missions can also obtain considerable area coverage if one flight track follows the gentle arc of the northern half of the island and if the other acquires coverage of the Isle of Pines and the southern coastal areas. Accomplishing these missions early in the month affords the opportunity to evaluate mission success and to permit subsequent coverage of holidays while the second fortnightly coverage of Guantanamo is obtained. It is anticipated that these missions will also satisfy the 90% area coverage requirement as well as coverage of the highest priority targets (see TAB A).

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[redacted]

5. The tabulation below presents the number of OXCART missions we conclude are needed to fulfill these requirements. It neither provides for 2 missions per week to stimulate the Cuban air defense system nor for additional mission to obtain special coverage.

[redacted]

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25X1 [redacted] T-O-P S-E-C-R-E-T [redacted] GOMOR-D-24/157 (CMG-M-10/2) 25X1

Month	Missions Required*
November	4
December	3
January	3
February	3
March	3
April	4
May	6
June	6
July	6
August	6
September	5
October	4
	53

* This column is based on an analysis of climatological data (see TAB B) and our reconnaissance experience over Cuba during the past year.

25X1 [redacted]

T-O-P S-E-C-R-E-T [redacted] 25X1

25X1 [redacted] 25X1

HIGHEST PRIORITY OBJECTIVES FOR OXCART RECONNAISSANCE OF CUBA

25X1 [redacted]

Pinar del Rio SAM Assembly Area
Siguanea Cruise Missile
Campo Florido Cruise Missile
Mayari Arriba Cruise Missile
Camilo Cienfuegos Airfield
Camaguey International Airfield
Holguin Airfield
San Antonio de los Banos Airfield
San Julian Airfield
Mariel Naval Base
Cabanas Naval Facility
Banes Naval Base
Cienfuegos Naval Base
Santiago de Cuba Naval Base
Neuvitas Port
Matanzas Port
Havana Port
Bahia Honda Port
Guantenamo Area
Artemisa Military Camp
Holguin Military Camp
Remedios Military Camp
Alto Cedro Military Camp
Santiago de las Vegas Military Camp
Torrens Military Camp
Havana Military Camp Calabazar
Dos Caminos Military Training Area

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[redacted]

25X1

25X1

T-O-P S-E-C-R-E-T

[redacted]

[redacted]

COMOR-D-20/157
(CNG-D-10/3)
TAB B

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CLIMATOLOGICAL DATA FROM SELECTED CUBAN WEATHER STATIONS

Weather Station	Days Per Month with 25% or Less Cloud Cover	
	Wet Season *	Dry Season **
Baracoa	9	11
Antilla	20	15
Punta Maisi	7	7
Muevitas	7	10
Camaguey	13	18
Guantanamo	8	18
San Julian	12	14
Havana	15	18
Cabo San Antonio	14	17
Nueva Gerona	12	14

* May - October
** November - April

NOTES: During dry season there are a few occasions when cloud cover blankets 50% to all of Cuba. This condition caused by a cold low persists for 10-14 days and will recur 60-90 days after dissipating.

Hurricane season occurs during August and September. Hurricanes last 5 days and are proceeded and followed by periods of good weather.

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[redacted]

T-O-P S-E-C-R-E-T

[redacted]

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